



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

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Applicant: Mazany, et al.

Examiner:

Serial No.: 10/777,885

Group Art Unit:

Filed: February 12, 2004.

Date: August 17, 2004

For: INORGANIC MATRIX COMPOSITIONS, COMPOSITES INCORPORATING THE  
MATRIX, AND PROCESS OF MAKING THE SAME

Commissioner of Patents and Trademarks  
Washington, D. C. 20231

CERTIFICATE OF MAILING

Sir:

The undersigned hereby certifies that the attached **INFORMATION DISCLOSURE STATEMENT, PTO FORM-1449(s), 8 CITED REFERENCES AND FEE OF \$180.00 BY CHECK** were mailed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, with sufficient first-class postage, no special handling, on August 17, 2004, before 5:00 PM, thereby ensuring that such document(s) will be in the hands of the U.S. Postal Service by the close of business this day.

The Commissioner is hereby authorized to charge any fees which might be required or credit any overpayment of fees with regard to the attached document(s) to Account No. **08-3150**.

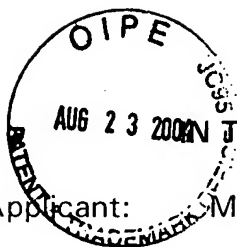
Respectfully submitted,

HUDAK & SHUNK CO., L.P.A.

By: Daniel J. Hudak  
Registration No. 25,879

DJH/lb  
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(330) 535-2220

Enclosures: Return Postcard  
Certificate of Mailing  
Supplemental Information Disclosure Statement, Form PTO-1449(s),  
Copies of 8 References  
Check in the amount of \$180.00



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Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

This invention relates to a modified alkali silicate composition for forming an inorganic polymer matrix having improved mechanical properties. The modified alkali silicate matrix is made by reacting an alkali silicate (or its precursors such as an alkali hydroxide, a  $\text{SiO}_2$  source and water), a non-silicate network former and/or reactive glass, water and optionally one or more multivalent cation(s) selected from Groups 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16 of the periodic table such as an alkaline earth salt, water and optional processing aids. An inorganic matrix composite can be prepared by applying a slurry of the modified aqueous alkali silicate composition to a reinforcing medium and curing the composite at a temperature from about  $15^\circ\text{C}$  up to  $1000^\circ\text{C}$  and a pressure of up to 20,000 psi for typical high-performance organic polymer processing (temperatures about  $15^\circ\text{C}$  to about  $200^\circ\text{C}$  and pressures  $<200$  psi). The composite can be shaped by compression molding as well as other known fabrication methods.

The Applicants have met the requirements under §1.97(c)(2) inasmuch as the undersigned hereby states that this Information Disclosure Statement is being filed before the mailing date of any final action under §1.113 and is accompanied by the fee set forth in §1.17(p) of \$180.00 by check.

08/25/2004 FFANAI2 00000028 10777885

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180.00 0P

As authorized and encouraged under 37 C.F.R. §1.97-1.99, applicant hereby cites as a means of complying with the duty of disclosure set forth in 37 C.F.R. §1.56, the following patents and/or documents, required copies enclosed, which the Examiner should consider with respect to the above-identified United States Patent Application:

U.S. DOCUMENTS		
PATENT/DOCUMENT NO.	DATE	INVENTOR
2,964,415	December 13, 1960	Payne Jr., et al.
3,933,689	January 20, 1976	Ray et al.
3,934,066	January 20, 1976	Murch et al.
3,935,018	January 27, 1976	Ray et al.
3,964,919	June 22, 1976	Ray et al.
3,989,532	November 2, 1976	Ray et al.
4,064,317	December 20, 1977	Fukuba et al.
4,159,302	June 26, 1979	Greve et al.
4,270,326	June 2, 1981	Holter et al.
4,284,664	August 18, 1981	Rauch, Sr.
4,297,252	October 27, 1981	Caesar et al.
4,299,872	November 10, 1981	Miguel et al.
4,472,199	September 18, 1984	Davidovits
4,509,559	April 9, 1985	Cheetham et al.
4,509,985	April 9, 1985	Davidovits et al.
4,675,577	June 23, 1987	Licht
4,729,916	March 8, 1988	Feldman
4,756,945	July 12, 1988	Gibb
4,767,656	August 30, 1988	Chee et al.
4,799,349	January 24, 1989	Luckanuck et al.
4,801,496	January 31, 1989	Buchacher

<b>PATENT/DOCUMENT NO.</b>	<b>DATE</b>	<b>INVENTOR</b>
4,818,595	April 4, 1989	Ellis
4,879,320	November 7, 1989	Hastings
4,888,311	December 19, 1989	Davidovits et al.
4,936,064	June 26, 1990	Gibb
4,936,939	June 26, 1990	Woolum
5,053,282	October 1, 1991	Delvaux et al.
5,130,184	July 14, 1992	Ellis
5,215,806	June 1, 1993	Bailey
5,258,216	November 2, 1994	vonBonin et al.
5,288,321	February 22, 1994	Davidovits
5,352,427	October 4, 1994	Davidovits et al
5,476,891	December 19, 1995	Welna
5,498,466	March 12, 1996	Navarro et al.
5,539,140	July 23, 1996	Davidovits et al.
5,580,648	December 3, 1996	Castle et al
5,722,213	March 3, 1998	Morency
5,786,095	July 28, 1998	Batdorf
5,798,307	August 25, 1998	Davidovits et al.
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6,240,691	June 5, 2001	Holzkaemper
6,270,915	August 7, 2001	Turpin et al.
6,296,699	October 2, 2001	Jin et al.
6,340,389	January 22, 2002	Klus
6,419,737	July 16, 2002	Haji
<b>FOREIGN DOCUMENTS</b>		
<b>PATENT/DOCUMENT NO.</b>	<b>DATE</b>	<b>COUNTRY</b>
2 029 701	December 23, 1971	DE
32 46 604	June 20, 1984	DE

0 674 089	September 27, 1995	EP
<b>ARTICLES/OTHER DOCUMENTS</b>		
Chemical Abstracts, vol. 85, no. 8, 23 August 1976; abstract no. 51069s, M. Tanaka: "Nonflammable inorganic foam" XP000063264		
Chemical Abstracts, vol. 93, no. 4, 28 July 1980, abstract no. 308J0w, J. Ueda et al. "Hardening and Waterproofing soft ground" XP000063866		
Chemical Abstracts, vol. 96, no. 10, 8 March 1982; abstract no. 73730e, "Hardening agent for waterglass" XP000064038		
Chemical Abstracts, vol. 103, no. 6, 12 August 1985, abstract no. 41661e, "Stabilization of weak foundations" XP000064227		
Chemical Abstracts, vol. 103, no. 12, 23 September 1985, abstract no. 92158d, "Strengthening of soil foundation with neutral grout" XP000064371		

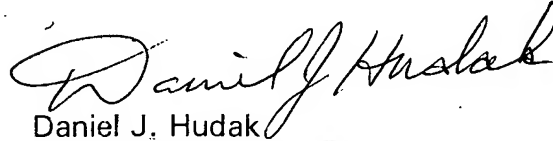
In accordance with 37 CFR 1.98(a)(2)(i) enclosed are copies of only the foreign and non-patent documents for the express purpose of providing the Patent and Trademark Office with an ample opportunity to evaluate the same and to arrive at an independent assessment of its materiality, if any, with regard to the examination of the application.

In reviewing the enclosed copy of the above publication, the Examiner is requested to ignore any underscoring or highlighting which may appear because such markings may or may not have any relationship to the subject matter of the above-identified application. The copy being submitted with this Information Disclosure Statement is the best copy available at this time.

An examination of the present application considering the above documents is requested.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA

A handwritten signature in black ink, appearing to read "Daniel J. Hudak". The signature is fluid and cursive, with the first name "Daniel" being more prominent.

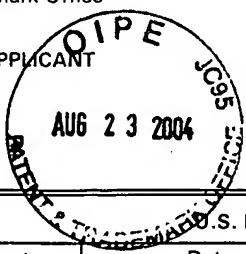
Daniel J. Hudak  
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DJH/lb

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Suite 307  
Cuyahoga Falls, OH 44221-3257  
(330) 535-2220

Attorney Docket No.: 200EP006B (GOODR-A-CIP)

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office  <b>LIST OF PRIOR ART CITED BY APPLICANT</b> (Use several sheets if necessary)		Atty. Docket No.: 200EP006B (GOODR-A-CIP)  Applicant: Mazany et al.  Filing Date: February 12, 2004		Serial No.: 10/777,885   Group:	
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EXAMINER	DATE CONSIDERED
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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